NOAA CLIMATE GOAL QUARTERLY

UPCOMING EVENTS: Climate Program Office Grant Proposals Due September 24. NOAA's 32nd Annual Climate Diagnostics and Prediction Workshop October 22-26 in Tallahassee, Florida. Climate Prediction Applications Science Workshop March 4-7, 2008 Chapel Hill, North Carolina. For information about logistics visit http://www.sercc.com/events.

April Coastal Climate Science and Services Workshop

In April 2007, NOAA convened a workshop in South Carolina entitled: *Climate Science and Services: Coastal Applications for Decision Making through Sea Grant Extension and Outreach.* The purpose of the workshop was to explore and foster the role of Sea Grant extension, communications, and education networks as a facilitator of climate science and services in coastal decision-making at the local level. The Workshop generated numerous connections among the climate and Sea Grant participants who agreed to work together to develop and distribute climate information to coastal resource managers. The workshop was an important step in the development of an expanded partnership among NOAA's climate and coastal programs. The Climate Assessments and Services Division of the NOAA/OAR Climate Program Office (CPO), the NOAA/OAR National Sea Grant Office, the NOAA/NOS Coastal Services Center, and the Sea Grant Assembly of Extension Program Leaders organized the workshop. *(Source: Lisa Vaughan)*

Climate Science & Services
Coastal Applications for Decision Making through Sea Grant Extension and Outreach

Scientists win Bronze Medal for a New Online Climate Data Set

In May, a team of NOAA scientists were awarded the Department of Commerce Bronze Medal for their work on a series of data sets called the new Radiosonde Atmospheric Temperature Products for Assessing Climate (RATPAC). These data sets include hemispheric, tropical and global mean temperature anomalies from 1958 to the present and station data from the Lanzante-Klein-Seidel (LKS) data set and the Integrated Global Radiosonde Archive (IGRA) data set. These data sets are now available online for public use and have already been used in international and national climate assessments. Scientists from the Climate Variability and Trends group of the Air Resources Lab, the Geophysical Fluid Dynamics Laboratory (GFDL) and the National Climatic Data Center (NCDC), supported by CPOs Climate Change Data and Detection (C^2D^2) program, participated in this research effort. For more information visit: http://www.ncdc. noaa.gov/oa/cab/ratpac. *(Source: Drs. Chris Miller and Bill Muarry, C^2D^2 Program Managers)*

New Buoy Released to Monitor Ocean Acidification

An increase in the amount of CO_2 absorbed by the ocean from the atmosphere can lead to ocean acidification (lowered pH). To monitor the pH level of the North Pacific, the National Science Foundation sponsored a group of scientists to release a buoy in the Gulf of Alaska. It will collect data at 5,000 meters deep and transmit the data via satellite. This buoy, which has sensors attached to monitor ocean-atmosphere interactions, carbon uptake, and ocean acidification, is the first of its kind and is an important new addition to the NOAA component of the ocean observing system, which is part of the Global Earth Observation System of Systems (GEOSS). Scientists from the Pacific Marine Environmental Lab (PMEL), the University of Washington, Fisheries and Oceans Canada, and the Institute of Ocean Sciences in Sidney, B.C. participated in this event. *(Source NOAA News)*

Workshop on Expanding Ocean Monitoring in the South Atlantic

An early May workshop in Argentina, supported by CPO and the U.S. CLIVAR office, brought together international agencies to discuss the need to better monitor heat and mass transport in the South Atlantic. These are key components for researching the Meridional Overturning Circulation. Work on the Meridional Overturning Circulation has become a high priority after the Joint Subcommittee of Ocean Science and Technology (JSOST) listed "Assessing Meridional Overturning Circulation Variability" as a near-term priority for national research in ocean sciences. Three key objectives from the workshop include: the need to sustain current observations (including ARGO floats), the need to develop new cost effective technology to allow near real-time full water column observation, and the importance of

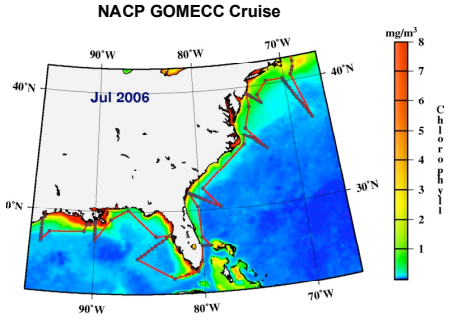
collaborating in instrument deployment and modeling to reduce operational costs. For further information, please visit the Workshop website: http://www.aoml.noaa.gov/phod/SAW. *(Source: Dr. Sylvia Garzoli)*

NEW POSTDOCTORAL FELLOWS ANNOUNCED!

The University Corporation for Atmospheric Research, Visiting Scientists Program announced the 2007 postdoctoral appointments for the NOAA Climate and Global Change Postdoctoral Fellowship Program. This program, which began in 1989, is designed to support the development of future climate scientists. This year's class consists of ten PhD students from various U.S. Universities who will spend their fellowship researching a range of atmospheric science topics.

North American Coastal Ocean Carbon Cycle Study

The coastal ocean plays a crucial role in the North America carbon cycle. The continental margins exchange CO_2 with the atmosphere and act as a pathway for the transport of terrestrial material from the land to the open ocean. The sign and magnitude of these interactions vary both spatially and temporally. Therefore, quantification of carbon sources and sinks in the coastal zone is essential to our understanding of the global carbon cycle. In 2007, the joint Pacific Marine Environmental Lab (PMEL) and the Atlantic Oceanographic Meteorological Lab (AOML) Marine CO_2 programs initiated a coastal carbon study as a component of the U.S. North American Carbon Program (NACP) to study carbon cycle processes in the coastal zone over a wide range of oceanographic, atmospheric, and biogeochemical conditions. The major goal of this project, funded by the CPO Global Carbon Cycle Program, is to identify the sources and sinks of CO_2 in U.S. coastal zones, establish baseline observation fields for carbon parameters, and provide comparative data for observations from other projects input into models. *(Source: Drs. Tedesco, Feely, Hankin, Sabine, Wanninkhof, Peng, Zhang, Hales, Cai, and Langdon.)*



DOC Climate and Weather Education Workshop

In an effort to help NOAA develop climate literacy education, the NOAA CPO education and outreach program helped support the Framework for Climate & Weather Literacy Workshop held at the Department of Commerce in April. The goal of the workshop was to develop an initial framework on improving climate and weather literacy in the US in order to address common misconceptions about weather and climate processes and identify the essential concepts a climate literate citizen or student should know. All draft and final reports will be posted at CPO's Education site, http://www.climate.noaa.gov/education. *(Source: Frank Niepold and Mark McCaffrey)*

First VOCALS Modeling Workshop

The First VOCALS (VAMOS Ocean-Cloud- Atmosphere-Land Study) Modeling Workshop (VMW1) was held in Boulder, CO, in mid-May. After intense discussions, the participants have achieved the following five workshop objectives: 1) Revise the scientific hypotheses of VOCALS modeling (e.g., the role of ocean eddies in the region); 2) Identify the models (both small scale, regional, and global) to be used in VOCALS, discuss their readiness, and review their difficulties with the key processes in the region; 3) Design strategies for model validation using current and anticipated VOCALS datasets; 4) Determine whether there are any critical measurement gaps in the plan of the VOCALS Regional Experiment; 5) Fix a timeline for development of the Multi-Scale Seasonal Prediction (MUSSIP) system. Presentations are been loaded in the VOCALS web page www.eol.ucar.edu/projects/vocals. NOAA's Climate and Prediction Program for the Americas (CPPA) provided travel funds for this workshop. *(Source: Dr. Jin Huang).*

Climate Change and Water Resources Meeting

In May, CPOs Chet Koblinsky, Nancy Beller-Simms, and Josh Foster attended a Climate Change and Water Resources Joint Headquarters Meeting. The goal of the meeting was to better understand NOAAs current and future capabilities for addressing questions on: 1) what a federal water agency should focus on in relation to climate; 2) what kind of information is needed to address climate change; and 3) what roles federal agencies can play in water resource planning and management. Chet, Gary Carter from the NWS Office of Hydrological Development (OHD), and Chris Milly from GFDL made presentations on behalf of NOAA. This workshop was sponsored by the US Army Corps of Engineers (USACE), the US Geological Survey (USGS) and the US Bureau of Reclamation (USBR). *(Source: Josh Foster)*